

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application. No new matter has been introduced by way of the claim amendments. Current additions to the claims are noted with underlined text. Current deletions from the claims are indicated by text ~~strike through~~ or ~~[[double bracketing]]~~. The status of each claim is indicated in parenthetical expression following the claim number.

WHAT IS CLAIMED IS:

1. (Currently Amended) A fluorescent ink, comprising:
 - a solvent; ~~and~~
 - a surfactant; and
 - carbon nanotubes suspended in the solvent;
 - wherein the carbon nanotubes are dispersed in the solvent; ~~and~~
 - wherein the carbon nanotubes are fluorescent and have diameters of less than about 3 nm; and
 - wherein the carbon nanotubes have a visible excitation and an emission following the visible excitation; and
 - wherein the fluorescent ink is suitable for deposition on a surface.
2. (Previously Amended) The fluorescent ink of Claim 1, wherein the carbon nanotubes are selected from the group consisting of single-wall carbon nanotubes, multi-wall carbon nanotubes, double-wall carbon nanotubes, and combinations thereof.
3. (Previously Amended) The fluorescent ink of Claim 1, wherein the carbon nanotubes comprise single-wall carbon nanotubes.
4. (Cancelled)
5. (Previously Amended) The fluorescent ink of Claim 3, wherein the carbon nanotubes comprise an essentially homogenous population of carbon nanotubes;
 - wherein the essentially homogenous population comprises a property selected from the group consisting of type, dimension, or species.

6. (Previously Amended) The fluorescent ink of Claim 3, wherein the carbon nanotubes comprise separated carbon nanotubes;
wherein the separated carbon nanotubes have fluorescence properties tuned within a range of excitation and emission wavelengths.
7. (Currently Amended) The fluorescent ink of Claim 1[[3]], wherein the solvent is selected from the group consisting of water, organic solvents, supercritical fluids, and combinations thereof.
8. (Currently Amended) ~~The fluorescent ink of Claim 7, further comprising a surfactant.~~
A fluorescent ink, comprising:
a solvent;
wherein the solvent is selected from the group consisting of water, organic solvents, supercritical fluids and combinations thereof;
a surfactant; and
single-wall carbon nanotubes suspended in the solvent;
wherein the single-wall carbon nanotubes are dispersed in the solvent;
wherein the single-wall carbon nanotubes are fluorescent and have diameters of less than about 3 nm; and
wherein the single-wall carbon nanotubes have a visible excitation and an emission following the visible excitation; and
wherein the fluorescent ink is suitable for deposition on a surface.
9. (Currently Amended) The fluorescent ink of Claim 1[[3]], further comprising an additive selected from the group consisting of traditional fluorescent inks, dyes, binders, nanoparticles, magnetic materials, and combinations thereof.
10. (Previously Amended) The fluorescent ink of Claim 3, wherein the emission comprises a near-infrared emission.
11. – 75. (Cancelled)

76. (Currently Amended) The fluorescent ink of Claim 1, wherein the fluorescent ink is suitable for deposition on the a surface in a patterned form.

77. (Currently Amended) ~~The fluorescent ink of Claim 1, wherein the carbon nanotubes are homogenized by electronic type.~~

A fluorescent ink, comprising:

a solvent; and

carbon nanotubes suspended in the solvent;

wherein the carbon nanotubes are homogenized by electronic type;

wherein the carbon nanotubes are dispersed in the solvent;

wherein the carbon nanotubes are fluorescent and have diameters of less than about 3 nm; and

wherein the carbon nanotubes have a visible excitation and an emission following the visible excitation; and

wherein the fluorescent ink is suitable for deposition on a surface.

78. (Currently Amended) The fluorescent ink of Claim 1[[3]], further comprising a polymer.

79. (Currently Amended) The fluorescent ink of Claim 1[[3]], wherein the carbon nanotubes are chemically derivatized.

80. (Currently Amended) ~~The fluorescent ink of Claim 3, wherein the fluorescent ink comprises an invisible ink.~~

A fluorescent ink, comprising:

a solvent; and

single-wall carbon nanotubes suspended in the solvent;

wherein the single-wall carbon nanotubes are dispersed in the solvent;

wherein the single-wall carbon nanotubes are fluorescent and have diameters of less than about 3 nm; and

wherein the single-wall carbon nanotubes have a visible excitation and an emission following the visible excitation; and

wherein the fluorescent ink is suitable for deposition on a surface; and

wherein the fluorescent ink comprises an invisible ink.